# **User Guide**

Metadata portal project aims to develop a metadata portal for linking geo-spatial datasets available across multiple MoES data portals. The project involves creation of metadata for geo-spatial datasets using metadata standards and development of a search interface for discovery of metadata and the corresponding datasets.

Metadata portal is developed using Java enterprise technologies and is deployed on Apache Tomcat web application server. MySQL database is used for the archival of the metadata information.

Salient Features:

- ISO 19115 standards compliant representation of metadata information
- GCMD Science Keywords for controlled keyword search
- Spatial, Temporal, Keyword & Free Text Search
- Simple interface for metadata submission, update and search
- Java EE technologies based cross platform solution



Fig 1: Metadata Portal index page

### Search Interface

Metadata Portal search interface can be assessed by clicking on the "Click here to view Metadata" link or the "Metadata" link provided on the top right navigation menu as shown in the above Metadata Portal index page figure. The search interface is used to search for relevant datasets by using free text or simple keywords such as parameters, sensors, instruments, locations etc. GCMD Science keywords directory is used for controlled search of keywords. The results can also be filtered based on organization, personnel, place/location, start date & end date and spatial extent (Bounding Box).

The search interface is divided mainly into two sections. The Left section consists of Additional Options to filter your search results based on various search criteria such as GCMD Keywords, Spatial Extent, Temporal Extent, Organization, Personnel, Place/Location. The Right section displays the relevant datasets (Search Results) based on the search criteria selected in the left section. The search interface also contains text-field for free text search.

## Free Text Search:

The search interface allows free text search of datasets. Enter the free text search terms / phrases (Example:- sea surface temperature) in the text field provided on the top and click on "search for" button as shown in below figure. The relevant datasets referring the entered free text search term/phrase will be displayed in the Search Results section.

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Fig 2: Free Text Search

#### **Keyword Search:**

The search interface allows keyword search based GCMD Science Keywords. Click on Keyword(s) tab displayed on the left section. Select the required GCMD science keywords by checking the corresponding check-boxes shown beside the keyword terms (Example:- Ocean Waves and Tides) as shown in below figure. The GCMD science keywords are displayed hierarchically in a tree structure. Expand the relevant nodes of the tree structure by clicking on the small triangle displayed beside each node. Multiple keywords can be selected and the selected keywords are displayed below in the same tab. Click on "Refine Results" button as shown in below figure. The relevant datasets referring the selected keywords will be displayed in the Search Results section.

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Fig 3: Keyword Search

## **Spatial Search:**

The search interface allows search for datasets whose spatial extent intersects with the specified bounding box drawn on map. Click on Spatial Extent tab displayed on the left section. The required bounding box can be entered either by drawing on the map or by entering the North, South, East and West coordinates of the spatial extent in the corresponding text fields as shown in below figure. Click on "Draw a bounding box" button displayed on top right corner of the map to enable drawing of bounding box on the map. Click and drag the mouse on the required region of the map and release the mouse to finish the drawing of the bounding box. The North, South, East and West coordinates of the drawn bounding box are entered automatically in the text fields below. Click on "Refine Results" button as shown in below figure. The relevant datasets referring the selected spatial extent will be displayed in the Search Results section.



Fig 4: Spatial Search

# **Temporal Search:**

The search interface allows search for datasets whose temporal extent (Start & End dates) intersects with the specified temporal extent (Start & End dates). Click on Temporal Extent tab displayed on the left section. Enter the Start and End dates in the corresponding text fields as shown in the below figure. Click on "Refine Results" button. The relevant datasets referring the selected temporal extent will be displayed in the Search Results section.

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Fig 5: Temporal Search

# Filter by Organization, Personnel & Place/Location:

The search interface allows to filter datasets based on organization, person and place/location. Click on "Filter by" tab displayed on the left section. Select the search criteria by the checking the corresponding check-box shown beside each criteria. Enter the required search term (Example:- Organization - NIOT) in the corresponding text field as shown in the below figure. Click on "Refine Results" button. The relevant datasets referring the selected search criteria will be displayed in the Search Results section.

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Fig 6: Filter By Organization, Person, Place/Location

### View Metadata and Access data:

The search results displayed on the right hand side include titles of relevant datasets, link to view detailed metadata of corresponding dataset and link to access data of corresponding dataset. Click on "View Metadata" to view detailed metadata of selected dataset. Click on "Access Data" to access data of corresponding dataset.

The Search interface also represents metadata of selected dataset in ISO 19115-2 and ISO 19115-1 XML formats. To view the metadata in ISO formats click on "ISO 19115-2 Metadata (XML)" and "ISO 19115-1 Metadata (XML)" links given on the top right corner of the detailed metadata page as shown in below figure.

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#### Distributor Contact(s):

1. Name : E. Pattabhi Rama Rao Position : Head, Data and Information Management Group Role : Distributor Phone : 04023886008 E-Mail : pattabhi [ at ] incois.gov.in Organization Name : Indian National Centre for Ocean Information Services (INCOIS) Address : Ocean Valley, Pragathi Nagar (BO), Nizampet (SO) City : Hyderabad State : Telangana Postal Code : 500090 Country : IND

#### Metadata Contact(s):

1. Name : E. Pattabhi Rama Rao Position : Head, Data and Information Management Group Role : PointOfContact Phone : 04023886008 E-Mail : pattabhi [ at ] incols.gov.in Organization Name : Indian National Centre for Ocean Information Services (INCOIS) Address : Ocean Valley, Pragathi Nagar (BO), Nizampet (SO) City : Hyderabad State : Telangana Postal Code : 500090 Country : IND

#### Extent

Start Date : 1997-08-21 End Date : Till date



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Fig 7: Metadata View

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